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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/715,298

11/17/2003

Timothy H. Voss

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EXAMINER

HWU, DAVIS D

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

11/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/715,298

Applicant(s)

VOSS, TIMOTHY H.

Examiner

Davis D. Hwu

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 16-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Applicant's affidavits, amendment and arguments of October 24, 2007 are acknowledged and entered and have been fully considered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1, 2, 5, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomlinson.

Tomlinson discloses a dispersal system for fire suppression material for use with an airborne craft, the system comprising a vessel 10 holding fire suppressant, the vessel being secured within or adjacent to an airborne craft, a dispenser for controllably dispensing the material from the vessel, and a flexible conduit 18 having a first end secured in fluid communication with the vessel and an unsupported second end for controllably directing the dispensed material adjacent to ground level. The second end being sufficiently remote from the airborne craft would have been a matter of design choice since such a modification would have involved a mere change in the length of the conduit 18, which is generally recognized as being within the level of ordinary skill in the art. Also, one having ordinary skill in the art would recognize that the second end must be remote from the aircraft for precise spraying.

4. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomlinson in view of King.

King teaches a dispersal system for fire suppression material for use with an airborne craft comprising a vessel 4 holding fire suppressant and a conduit 19 having a first end secured in fluid communication with the vessel and a second end for controllably directing the dispensed material adjacent to ground level in which the conduit has release mechanism (threads 18) for easy removal. King also teaches a valve 21 in the second end of the conduit to control dispensing of the material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Tomlinson by providing a release mechanism as recited for easy removal of the conduit and incorporating a valve into the second end of the conduit to control the spray as taught by King.

5. Claims 4, 6, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomlinson in view of Waldrum.

Waldrum shows a dispersal system for fire suppression material for use with an airborne craft, the system comprising a vessel holding fire suppressant, the vessel being secured within or adjacent to an airborne craft, a dispenser (comprising 16 and 18) for controllably dispensing the material from the vessel wherein the dispenser has a plurality of vanes 132 as recited in claim 4 and the dispenser rotates as recited in claim 6. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Tomlinson by providing a dispenser having vanes and making the dispenser rotatable as taught by Waldrum to discharge the material with maximum kinetic energy and with minimum turbulence (column 3, lines 43-44).

6. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomlinson in view of Manicatide et al.

Manicatide et al. teaches a dispersal system for fire suppression material for use with an airborne craft, the system comprising a dispenser 5 for controllably dispensing the material from the vessel, wherein the dispenser non-symmetrically directs material in a direction from a central axis. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Tomlinson by providing a dispenser to non-symmetrically direct the material in a direction away from a central axis since such arrangements have already been taught by Manicatide et al.

7. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomlinson in view of Baker et al.

Baker et al. teaches a dispersal system for fire suppression material from an aircraft comprising a vessel 12, a dispensing head 40 and a shroud 30 surrounding the head 40 to act as a physical guard for the head 40. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Tomlinson by providing a shroud to surround the valve and dispenser head as taught by Baker et al. to provide protection for the valve and dispenser head. The shapes recited in claims 14 and 15 would have been matters of design choice since such modifications would involved a mere change in the shape of an object which is generally recognized as being within the level of ordinary skill in the art.

Response to Arguments

8. Applicant's affidavits and arguments filed October 24, 2007 have been fully considered but they are not persuasive. First, Tomlinson shows a swivel 17 on the conduit 18 which allows 18 to be moved up or down or left or right and thus providing a flexible section to 18. Since conduit 18 can be flexed via 17, it is considered to be a flexible conduit. Second, Tomlinson shows that the end of conduit 18 is unsupported as seen in Figures 1 and 3 and Tomlinson states that the device can be used on that helicopter but does not have to be. However, if the device was to be used on that particular helicopter and the boom was as long as argued by the Applicant, it would be long enough to be sufficiently remote from the helicopter for flow of the dispensed material to be substantially unaffected by an air stream associated with operation of the helicopter. The length of 18 being excessive is not significant since 18 will carry out the function as required. The combinations of Tomlinson, King, Waldrum, Manicatide et al., and Baker et al. disclose the limitations of the dependent claims.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davis D. Hwu whose telephone number is 571-272-4904. The examiner can normally be reached on 8:00-4:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.



Primary Examiner